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TITLE : HYDROGEN GENERATOR

ABSTRACT : PURPOSE: A hydrogen generator having a system to control the amount of hydrogen generated according to the assumption of hydrogen, in which supply water is vaporized by the reaction heat produced in the generation of  $H_2$  upon reaction with a metal hydride, and then the water vapor is worked on metal hydride to generate hydrogen.

CONSTITUTION: The supply water 1 is flowed from the corrugated water feed pipe 6 inserted into the metal hydride 7 from the upper part to the lower part to the end part 10 of the pipe, and then the water is reacted with the nearby hydride 7, e.g.,  $CaH_2$ , etc., to generate  $H_2$  and reaction heat. And, the supply water 1 is completely vaporized by the reaction heat through the pipe 6 and then exhausted from the end 11, and then the vaporized supply water is widely diffused into the reactor 5 to cause the reaction of it with  $CaH_2$  to take place for the generation of  $H_2$ . As a result, by controlling the amount of supply water to be vaporized, the amount of  $H_2$  generated can be controlled in a short time, thus preventing the delay of  $H_2$  generation reaction and also eliminating the variation in the pressure of the reactor 5.

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